

Amendments to the Specification

Please replace the paragraph at page 8, lines 23-32 with the following amended paragraph:

It will be readily recognized by one of skill in the art that the particular plant secondary metabolite gene examined in the method of this invention is not critical. In one embodiment, endogenous terpenoid pathway genes of *Mentha*, tobacco, and *Taxus* are examined. Peppermint accumulates essential oil (1-2% dw) that consists almost exclusively of monoterpenes, such as menthol and menthone. The first committed step into the pathway is the synthesis of the cyclic molecule limonene. The limonene synthase gene is expressed in leucoplasts of trichome secretory cells, and its expression coincides with the expression of other genes in the pathway. The promoter for the limonene synthase gene was identified and sequenced as described in US Patent Application Serial No. _____, entitled "~~Method for Selecting Metabolite Producing Cells~~", ~~filed October 27, 2000~~ 09/699,083, filed October 27, 2000, now abandoned.

Please replace the paragraph at page 9, lines 3-14 with the following amended paragraph:

Certain *Taxus* species accumulate paclitaxel, which consists of a diterpene moiety and a benzoyl phenylisoserine moiety. Taxadiene synthase catalyzes the first committed step into biosynthesis of the terpenoid moiety of the paclitaxel molecule. The fact that paclitaxel production does not significantly increase when cell suspension cultures are supplemented with phenylalanine, a precursor of the phenylpropanoid moiety, suggests that this pathway is not limiting to Paclitaxel accumulation. In contrast, addition of jasmonate, which induces enzymes of the diterpenoid pathway, greatly increases paclitaxel accumulation in cell culture. This suggests that synthesis and modification of the taxane ring is limiting to paclitaxel accumulation. Taxadiene synthase catalyzes the first step into the taxane biosynthesis pathway. The gene is jasmonate-inducible, and its induction correlates with the onset of paclitaxel accumulation. The promoter for the taxadiene synthase gene was identified and sequenced as described in US Patent Application Serial No. _____, entitled "~~Method for Selecting Metabolite Producing Cells~~", ~~filed October 27, 2000~~ 09/699,083, filed October 27, 2000, now abandoned.

Please replace the paragraph beginning on page 10, line 2 and ending at page 11, line 4 with the following amended paragraph:

We have cloned *Arabidopsis* transcription factors and generated stable overexpressing lines for over 600 transcription factors for use in the method of the invention. These *Arabidopsis* transcription factor sequences and methods for identifying other putative transcription factor sequences ~~is~~ are described in US Pat. App. Ser. Nos. 09/394,519, filed September 13, 1999, now abandoned, 09/506,720, filed February 17, 2000, now abandoned, 09/533,030, filed March 22, 2000, now abandoned, 09/533,392, filed March 22, 2000, now abandoned, 09/533,029, filed March 22, 2000, pending, 09/532,591, filed March 22, 2000, now abandoned, 09/533,648, filed March 22, 2000, now abandoned, or PCT publications PCT/US00/31418, filed November 14, 2000, now expired, PCT/US00/31458, filed November 14, 2000, now expired, PCT/US00/31457, filed November 14, 2000, now expired, PCT/US00/31325, filed November 14, 2000, now expired, PCT/US00/31414, filed November 14, 2000, now expired, PCT/US00/31344, filed November 14, 2000, now expired, and PCT/US00/28141, filed October 11, 2000, now expired.

Please replace the paragraph beginning at page 17, line 8 through line 13 with the following amended paragraph:

Terpenoid promoter gene constructs were introduced into *Agrobacterium* cells. Suspensions of the resulting *Agrobacterium* strains were then mixed with suspension of cells containing *Arabidopsis* transcription factor overexpressor constructs prepared as described in US Pat. App. Ser. Nos. 09/394,519, filed September 13, 1999, now abandoned, 09/506,720, filed February 17, 2000, now abandoned, 09/533,030, filed March 22, 2000, now abandoned, 09/533,392, filed March 22, 2000, now abandoned, 09/533,029, filed March 22, 2000, pending, 09/532,591, filed March 22, 2000, now abandoned, 09/533,648, filed March 22, 2000, now abandoned, or PCT publications PCT/US00/31418, filed November 14, 2000, now expired, PCT/US00/31458, filed November 14, 2000, now expired, PCT/US00/31457, filed November 14, 2000, now expired, PCT/US00/31325, filed November 14, 2000, now expired, PCT/US00/31414, filed November 14, 2000, now expired, PCT/US00/31344, filed November 14, 2000, now expired, and PCT/US00/28141, filed October 11, 2000, now expired.